

AMENDMENTS TO THE CLAIMS

1. (Currently amended) A method for analyzing specified properties of a set of substances, the method comprising:
 - a. providing a platen having two substantially parallel planar surfaces, an inner layer of hydrophilic material and two outer layers of hydrophobic material coupled to opposite sides of the inner layer, and a two-dimensional array of addressable through-holes having an areal density of at least 1.6 through-holes per square millimeter, wherein each through-hole includes at least one wall containing at least one hydrophilic region;
 - b. forming dissolvable coatings of a set of distinct substances retained on the hydrophilic region of the walls of the through-holes in such a manner that a first through-hole contains a first substance distinct from a second substance contained in an adjacent through-hole to the first through-hole;
 - c. adding a liquid into at least one of the through-holes containing a substance for permitting a reaction between the liquid and the substance; and
 - d. characterizing contents of distinct through-holes in terms of the specified properties.
2. (Original) A method according to claim 1, wherein the set of different substances includes a reagent.
3. (Original) A method according to claim 1, wherein the set of different substances comprises a library of at least 1000 substances.
4. (Original) A method according to claim 1, wherein the set of different substances include optical taggants.
5. (Previously presented) A method according to claim 1, wherein the step of retaining the set of distinct substances further includes:
loading the set of distinct substances in one of liquid solution and suspension.

6. (Original) A method according to claim 1, wherein the step of adding a liquid includes adding a liquid substantially uniformly to the through-holes of the array.
7. (Original) A method according to claim 6, wherein the step of adding a liquid includes resuspending the distinct substances in liquid by means of wetting.
8. (Original) A method according to claim 1, wherein the step of characterizing contents of distinct through-holes includes characterizing by optical methods.
9. (Original) A method according to claim 8, wherein the step of characterizing contents of distinct through-holes includes characterizing by fluorometric methods.
10. (Currently amended) A platen for retaining biological samples, the platen comprising:
 - a. an inner layer of hydrophilic material and two outer layers of hydrophobic material coupled to opposite sides of the inner layer;
 - b. a two-dimensional array of addressable through-holes having an areal density of at least 1.6 through-holes per square millimeter, wherein each through-hole includes at least one wall containing at least one hydrophilic region; and
 - c. a set of distinct substances retained as [[a]] dissolvable coatings on the hydrophilic region of the walls of respective through-holes of the array.
11. (Canceled)
12. (Previously presented) A platen according to claim 10, wherein distinct substances of the set of distinct substances are retained within through-holes of the platen by surface tension.
13. (Canceled)
14. (Canceled)

15. (New) A method for analyzing specified properties of a set of substances, the method comprising:

a. providing a platen having two substantially parallel planar surfaces, an inner layer of hydrophilic material and two outer layers of hydrophobic material coupled to opposite sides of the inner layer, and a two-dimensional array of addressable through-holes having an areal density of at least 1.6 through-holes per square millimeter, wherein each through-hole includes at least one wall containing at least one hydrophilic region;

b. forming coatings of a set of distinct substances retained on the hydrophilic region of the walls of the through-holes in such a manner that a first through-hole contains a first substance distinct from a second substance contained in an adjacent through-hole to the first through-hole;

c. adding a liquid into at least one of the through-holes containing a substance thereby resuspending the distinct substances in liquid by means of wetting to permit a reaction between the liquid and the substance; and

d. characterizing contents of distinct through-holes in terms of the specified properties.

16. (New) A method according to claim 15, wherein the set of different substances includes a reagent.

17. (New) A method according to claim 15, wherein the set of different substances comprises a library of at least 1000 substances.

18. (New) A method according to claim 15, wherein the set of different substances include optical taggants.

19. (New) A method according to claim 15, wherein the step of retaining the set of distinct substances further includes:

loading the set of distinct substances in one of liquid solution and suspension.

20. (New) A method according to claim 15, wherein the step of adding a liquid includes adding a liquid substantially uniformly to the through-holes of the array.
21. (New) A method for analyzing specified properties of a set of substances, the method comprising:
 - a. providing a platen having two substantially parallel planar surfaces and a two-dimensional array of addressable through-holes;
 - b. forming dissolvable coatings of a set of distinct substances retained on the walls of the through-holes;
 - c. adding a liquid into at least one of the through-holes containing a substance for permitting a reaction between the liquid and the substance; and
 - d. characterizing contents of distinct through-holes in terms of the specified properties.
22. (New) A platen for retaining biological samples, the platen comprising:
 - a. a two-dimensional array of addressable through-holes; and
 - b. a set of distinct substances retained as dissolvable coatings on the walls of respective through-holes of the array.
23. (New) A method for analyzing specified properties of a set of substances, the method comprising:
 - a. providing a platen having two substantially parallel planar surfaces, and a two-dimensional array of addressable through-holes;
 - b. forming coatings of a set of distinct substances retained on the walls of the through-holes;
 - c. adding a liquid into at least one of the through-holes containing a substance thereby resuspending the distinct substances in liquid by means of wetting to permit a reaction between the liquid and the substance; and
 - d. characterizing contents of distinct through-holes in terms of the specified properties.